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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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August 29, 2000

CERTIFIED RETURN RECEIPT
Z 230 748 239

Douglas Nielsen
Road Supervisor
Duchesne County
P.O. Box 356
Duchesne, Utah 84021-0356

Re: Review of Notice of Intention to Commence Large Mining Operations, Duchesne County, Duchesne County Asphalt Mine, M/047/028, Uintah County, Utah

Dear Mr. Nielsen:

The Division has completed a review of your large mine notice response received on July 27, 2000, regarding the Duchesne County Asphalt Mine. This submission was in response to the Division's June 20, 2000, review letter. Additional information was provided during your phone conversation on August 16, 2000, with Tony Gallegos of the Division.

After reviewing this latest information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please provide a response to these latest comments by September 29, 2000.**

The Division will suspend further review of this notice until your response to this letter is received. If you have any questions in this regard please contact me, or Tony Gallegos of the Minerals Staff. If you wish to arrange a meeting to discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment: Review, Surety Estimate
O:\REVIEW\m47-28rvw3.

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Duchesne County
Duchesne County Asphalt Mine
M/047/028
August 29, 2000

R647-4-103. Notice of Intention to Commence Large Mining Operations.

The notice of intention (NOI) for this operation is made up of a series of submissions and Division review letters. Specifically, the NOI submission received May 5, 1995, Division letter dated January 30, 1996, NOI submission received October 8, 1997, Division letter dated April 27, 1998, NOI submission received April 20, 2000, Division letter dated June 20, 2000, NOI submission received July 27, 2000.

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

As confirmation information, the latest version of the Exhibit B map indicates no soil was salvaged from the areas labeled as: the present mining area, waste material stockpile, crushing area, material stockpile and loading area. This version of the Exhibit B map also identifies pre-law areas as the present mining area, and waste material stockpile. A review of the Division files confirms that the pit, highwall and a portion of the stockpile were existing prior to submission of the initial small mine notice filed by John Fausett in 1987. (AG)

105.2 Surface facilities map

The latest version of the **Exhibit B** map included several highlighted regions with smaller geometric shapes within these regions. Acreages are shown for the geometric shapes, but not the regions. The Division would consider the entire area within the highlighted region as being affected by this operation. Division measurements off this version of Exhibit B map at a scale of 1 inch = 200 feet, provide the following acreages for these regions, top to bottom: Present Mining Area and Waste Material Stockpile region = 7.52 acres, Crushing Area and Material Stockpile and Loading Area region = 3.72 acres, Top Soil (stockpile)region = 2.94 acres, Previous Crushing and Stockpiling Area region = 1.80 acres, and Proposed Mining Area Extension = 4.38 acres. These measurements do not include the corridor identified as the Existing Uintah County Road Right Of Way. These measurements give a total disturbed area of 20.36 acres.

Measurements of the highlighted regions shown on the oversize **Exhibit E** map at an approximate scale of 1 inch = 300 feet, provide the following acreages: upper left blue region (proposed extension area) = 20.88 acres, upper right yellow region (present mining, waste stockpile, crushing area, material stockpile, topsoil stockpile, previous crushing and stockpile) = 11.91 acres, roads in lower left blue region = 2.89 acres. According to the notes on Exhibit E, most roads in the southern end (for drill sites #4, 6, 7, and 8) were already in place. Excluding these roads would give a total disturbed area of 32.79 acres.

A comparison of the measured acreages from the two maps for the same regions reveals some discrepancies. Exhibit B gives a total of 15.98 acres for the present mining area, waste material stockpile, crushing area, material stockpile and loading area, topsoil stockpile, and previous crushing and stockpiling area. For this same region Exhibit E gives a total of 11.91 acres. Exhibit B shows the extension area as 4.6 acres, while Exhibit E shows the extension area as being 20.88 acres.

The Division will use the 15.98 acre figure as an estimate of regions shown on Exhibit B, with the exclusion of the acreage for the proposed mining extension area. The Division will use the 20.88 acre figure as an estimate of the extension area disturbance. The Division will use a figure of 36.86 acres as an estimate of the total amount of surface disturbance at this site unless Duchesne County wishes to provide additional information to support different acreage figures. (AG)

Please explain the reason for different color coding on Exhibit E for the access road leading to borehole #8. Was this section of road existing? (AG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)
The cross section in this submission shows the pit surface as being backfilled to a 45 degree angle at final reclamation. Based on the Division phone conversation of August 16, 2000, with Doug Nielsen, Duchesne County intends to backfill the pit to the extent possible using the overburden immediately adjacent to the pit at the time of final reclamation. The submitted cross section shows the ideal backfill of the entire pit. The volume of material available for backfilling will probably not be sufficient to achieve a 45 degree slope for the entire vertical height of the highwall (approximately 140 feet). Topsoil pushed down from the extension area will be used to cover the backfilled material. Please confirm this understanding, or provide the correct information. (AG)

A specific reclamation treatments map was not included in this submission; however, information describing the disturbed acreage and proposed reclamation tasks has been provided. The Division will use this information to complete a reclamation cost estimate. (AG)

R647-4-106 - Operation Plan
106.3 Estimated acreages disturbed, reclaimed, annually.
As clarification, although no mining is planned in the extension area to the west of the existing pit, the current disturbances in this area will need to be included as part of the disturbed acreage. Areas which are reseeded, usually require up to three growing seasons before the area can be fully released. Reclaimed, but unreleased areas are included in the surface disturbance until final release. (AG)

106.4 Nature of materials mined, waste and estimated tonnages
The Division has received the additional soils information sent by fax on August 28, 2000. Please see comments under section R647-4-110.5.

R647-4-109 - Impact Assessment
109.4 Slope stability, erosion control, air quality, safety
This submission describes the benches as being about 30 feet wide, but no vertical spacing is given or shown in the cross section. Please describe the typical vertical spacing between benches. (AG)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

As clarification, the proposed reclamation plan describes all roads, pits, slopes and other areas as being graded back to slope and contoured into the existing ground and covered with topsoil, scarified and reseeded. All disturbed areas will be covered with six inches of topsoil. If overburden material is needed as topsoil substitute there may be a need for fertilizers. At final reclamation, all available overburden will be pushed into the pit as far up the highwall as possible. All roads and disturbances in the extension area are proposed to be reclaimed during the fall 2000. Please confirm this information as being correct, or provide the correct information. (AG)

The pit cross section submitted shows the entire highwall as being backfilled. No pit benching is shown in the cross section although the text describes benches being 30 feet wide. The April 2000 submission stated bench spacing will continue the same as now. Please describe the vertical spacing of the pit benching or provide a cross section showing the current benching. (AG)

The submission did not specifically describe reclamation treatments in the extension area. The Division would recommend regrading the grubbed areas, but leaving the surface in a roughened condition. Piles of grubbed vegetation and rock should be scattered on the regraded areas. Seeding should take place immediately after the earthwork is completed while the soil is still loose. The preferred time of seeding is the late fall. (AG)

110.3 Description of facilities to be left (post mining use)

The section of road within the Uintah County Right-of-Way shown on Exhibit E is proposed to remain for continued access to private land located to the east of the pit. Please see comments under section R647-4-112 Variance in response to this proposed post mining use. (AG)

110.5 Revegetation

The latest soils analysis faxed to the Division was for the soils stored in the 1.5 acre topsoil stockpile area shown on Exhibit B. This soil analysis and the previous soil data from the Natural Resources Conservation Service reveal a deficiency in organic nutrients in the topsoil stockpile and in the proposed mining extension area above the current mining operations. The Division recommends the incorporation of composted manure at a rate of 5 tons/acre in the extension area, and 10 tons/acre in the mining, crushing and stockpile areas. The composted manure should be spread after the topsoil has been spread over the disturbed area. The compost should then be ripped into the upper six inches of the soil layer followed by seeding. The reclamation cost estimate has been revised to reflect the use of composted manure as a soil amendment. Please indicate your acceptance or rejection of this reclamation treatment. If you wish to reject this proposed treatment, please provide justification to support your rejection. (LK, AG)

647-4-111 - Reclamation Practices

111.7 Highwalls stabilized at 45 degrees or less

The cross section in this submission shows the entire pit highwall as being backfilled. After the August 16, 2000 phone conversation, we understand that the pit will be backfilled to the extent possible by using immediately adjacent materials. Given this, it is more likely that only a portion of the pit highwall will be backfilled, while the higher portion would be standing at the current angle which is steeper than 45 degrees.

The original small mine notice filed in 1987 requested a variance to allow highwalls to remain at angles steeper than 45 degrees. The highwalls were documented as existing disturbances at that time. Since that date, the vertical height of the highwalls has increased as the pit has deepened. If the entire highwall cannot be backfilled to a slope of 45 degrees or less, then partial backfilling will not significantly decrease the safety hazard at the base of the highwall. Additional safety measures to prevent public access or provide warning will be needed at final reclamation. Please see the variance section for additional comments on the final highwall configuration. (AG)

111.12 Topsoil redistribution

Section 106.6 of the previous submission indicated 6 inches of topsoil would be recovered from a 3.5 acre area to provide an estimated 3,000 CY of soil for use in reclamation. Using measurements of regions highlighted on Exhibit E for the Present Mining Area and Waste Material Stockpile Area, a 6-inch layer of topsoil over these areas (approximately 7.52 acres) would require approximately 6,000 cubic yards. Given the limited amount of topsoil resources available, the Division would recommend spreading the volume of topsoil stockpiled at a minimum 6-inch depth over as much of the backfilled pit area as possible. Please indicate your acceptance or rejection of this proposed topsoil redistribution scenario. (AG)

R647-4-112 - Variance

This submission does not include a request for a variance for leaving highwalls at angles steeper than 45 degrees. This submission shows a backfilled slope up to the top of the highwall as the pit configuration after final reclamation. From the August 16, 2000 phone conversation, we understand that a portion of the highwall will be backfilled against using materials immediately available around the pit area. Using the available materials around the pit would most likely create a final pit configuration which includes a near-vertical section of highwall with the backfill material reaching up the highwall face for a minimal height with a gradual slope leading away from the base of the highwall.

The original 8-7-87 SMO filed by John Fausett included a variance request for leaving highwalls steeper than 45 degrees. This notice was submitted after an MR-1 Form had been submitted and reviewed by the Division. The change in Minerals Rules then required an SMO for this operation. The Division did not send a formal acceptance/NOI-completeness letter, nor respond formally to the variance request in writing. A new SMO was filed by Robert Fausett on 12-20-94 with a transfer form which transferred the old SMO from John Fausett (deceased) to Esther Fausett (surviving wife). This new SMO also included a request for a highwall variance. The Division did not send an acceptance/completeness letter in response to this notice. A short time later, the Division requested a Large Mine Operation NOI (LMO) be submitted in a 2-7-95 letter.

Given the pre-law conditions at the site, the limited amount of overburden or waste material available for backfilling against the highwall, and the minor enhancement in safety by placing a minor amount of backfill against the highwall, the Division will consider granting a variance allowing the highwalls to remain steeper than 45 degrees at final reclamation, provided the pit is reclaimed according to the following five guidelines:

(1) All available overburden or reject asphalt materials around the pit area will be pushed into the pit excavation with the intention of making the pit non impounding. The backfilled materials shall be pushed into the pit in an order which will best support revegetation of the final backfill surface, i.e. asphaltic material in the pit first, followed by mixed soil overburden material, with topsoil material as the top layer.

(2) The pit backfill material shall be placed and graded to provide positive drainage out of the pit. Additional earthwork will be performed, as needed, to provide for positive drainage out of the backfilled pit.

(3) The backfilled surface shall be left in an extremely rough state to minimize erosion and discourage public access to the base of the highwall. Boulders or native wood debris may also be used to discourage public access and break the reclaimed area up visually. The final layer in the backfill shall be a topsoil layer of a minimum 6-inch depth.

(4) The backfilling of the pit shall be scheduled to be completed in the fall so the area can be immediately seeded after the earthwork is completed, while the soil is still loose.

(5) Signs shall be posted conspicuously around the reclaimed pit area informing the public of the mine highwall hazard. Public access to the private property shall be restricted by fencing and a locked gate.

Please provide a written acceptance or rejection of these five guidelines for reclamation of the pit in your response to this review. (AG)

R647-4-113 - Surety

The Division has prepared a revised reclamation estimate based on the information received to date. A copy of the estimate is attached for your review and comment. Please indicate your acceptance or rejection of this estimate in your response to this review. Based on this estimate, and unless rejected by Duchesne County, the Division will request a surety in the amount of $89,800 be posted for this large mine operation. You may choose to increase the existing surety to this amount, or provide a new form of surety. A new reclamation contract (Form MR-RC) will also need to be prepared. Please contact the Division for the appropriate surety and reclamation contract forms.

A brief summary of the reclamation treatments used in preparation of the Division's estimate is described below. Please confirm your agreement with this summary, or provide written comments to revise this summary. (AG)

RECLAMATION SUMMARY

Reclamation of the extension area (approximately 20.88 acres including roads) will include plugging all drill holes, spreading soils and grubbed vegetation over the area, spreading composted manure over the area at a rate of 5 ton/acre, ripping the compost into the upper six inches of soil, ripping roads to a depth of one to two feet, regrading road cuts close to the approximate original contour, and broadcast seeding the area immediately after completion of the earthwork, preferably in the fall.

Reclamation of the cut and fill access road leading up to the extension area will include regrading to the approximate original contour, spreading composted manure over the area at a rate of 5 ton/acre, ripping or mixing the compost into the upper six inches of soil, followed by broadcast seeding. The final regraded surface shall be left in an extremely roughened condition to minimize erosion, and enhance moisture retention. Rocks and grubbed vegetation should be randomly placed on the regraded area to discourage public access and break the area up visually.

Reclamation of the pit and waste stockpile area (approximately 7.52 acres) shall include grading the waste material into the pit as partial backfill to provide for positive drainage, placing topsoil material over the backfill, spreading composted manure over the area at a rate of 10 ton/acre, ripping the compost into the upper six inches of soil, and broadcast seeding the area. The final surface shall be left in an extremely rough state to minimize erosion and discourage public access to the base of the highwall. Boulders or grubbed vegetation debris should also be used to discourage public access and break the reclaimed area up visually. Warning signs will be placed around the perimeter of the backfilled pit area to provide warning in all directions which provide access to the base of the highwall.

Reclamation of the crushing area and material stockpile area (approximately 3.72 acres) shall include removal of all structures and debris, regrading to blend in with the surrounding area, deep ripping of all compacted areas such as roads or pads, spreading composted manure over the area at a rate of 10 ton/acre, ripping the compost into the upper six inches of soil, placing boulders or grubbed vegetation randomly across the area to discourage public access and visually break up the area, and broadcast seeding the area immediately after completion of the earthwork, preferably in the fall.

Reclamation of the topsoil stockpile and previous crushing and stockpiling areas (approximately 2.94 and 1.80 acres, respectively) shall include removal of all structures and debris, regrading the area to blend in with the surrounding area, spreading composted manure over the area at a rate of 10 ton/acre, ripping the compost into the upper six inches of soil, ripping of all compacted areas such as roads or pads to a depth of one to two feet, placing boulders or grubbed vegetation

randomly across the area to discourage public access and to visually break up the area, and broadcast seeding the area immediately after completion of the earthwork, preferably in the fall.

The section of main access road into the mine site, as identified on Exhibit E, shall remain for the post-mine access to private lands. Reclamation of any other remaining access roads within the areas described above will include deep ripping, regrading to blend in with the natural topography, spreading composted manure over the soiled area at a rate of 10 ton/acre, placing boulders or grubbed vegetation randomly across the area to discourage public access and to visually break up the area, and broadcast seeding the area immediately after completion of the earthwork, preferably in the fall.

The natural drainage system leading into the reclaimed mine area shall be re-established through the site by grading drainage channels appropriately sized to match the undisturbed portion of the channel leading into the site. Reconstructed drainage channels shall also be broadcast seeded.

RECLAMATION SURETY ESTIMATE
Duchesne County *last revision* *./25/2000*
Duchesne County Asphalt *filename m47-28.wb2* *page "ESTIMATE"*
M/047/028 **Duchesne County**
Prepared by Utah State Division of Oil, Gas & Mining

Note	
(1)	DOGM lump sum assumed
(2)	Means Heavy Construction Cost Data 2000, 02220-100-0100, mix of bldg. types, avg., excluding dump fees
(3)	Means 2000, 02225-730-5100, bldg demo, rubbish handling, $0.50/CY per mile for >8CY truck; assumed 100 miles round trip
(4)	Means 2000, 02225-740-0100, dump charges, typical urban city, tipping fees only, bldg construction mtls
(5)	Rental Rate Blue Book 3Q/00, Cat 950G, 4 CY, $66.38/hr+$40.87/hr, & Means 2000, Crew B-10U, loading trucks only
(6)	DOGM assumed wage for unskilled general labor
(7)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, mtl 2550 lb/CY, 200 ft push
(8)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, multi shank rippers, speed 1.0 mph
(8)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, multi shank rippers, speed 1.0 mph
(9)	Means 2000 01500-200-0200 hyd excavator 1 1/2CY, $26.65/hr op+$104.38/hr rent+$41.43/hr Crew B-12B
(8)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, multi shank rippers, speed 1.0 mph
(10)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, mtl 2550 lb/CY, 50 ft push, 1 ft depth
(11)	Contractor's actual costs, 1991 at E/053/012 escalated to 2000-$, Cat 225 Excavator, 20 ft wide road
(12)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, mtl 2550 lb/CY, 100 ft push
(8)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, multi shank rippers, speed 1.0 mph
(13)	Means 2000 & Blue Book 3Q/00: Cat D10N, U, mtl 2550 lb/CY, 50 ft push, avg vol 0.5CY/LF-berm assumed
(14)	Means 2000 02320-200-2010: earthwork, hauling excavated or borrow material, off highway hauler, 22 CY, 1000 ft round trip,
(15)	Means 2000 & Blue Book 3Q/00: Cat 950G Series II, 200 ft haul,
(00)	DOGM general estimate - manure $16/ton delivered, $14 ton/acre spreading
(00)	DOGM general estimate - manure $16/ton delivered, $14 ton/acre spreading
(00)	DOGM general estimate - manure $16/ton delivered, $14 ton/acre spreading
(00)	DOGM general estimate - broadcast seeding
(00)	DOGM general estimate - site cleanup & trash removal
(00)	DOGM general estimate - equipment mobilization
(16)	Means 2000, 01300-700-0180, project manager, minimum $1,930/wk

RECLAMATION SURETY ESTIMATE

Duchesne County *last revision* 08/29/2000

Duchesne County Asphalt *filename m47-28 wb2* *page "ESTIMATE"*

M/047/028 **Duchesne County**

Prepared by Utah State Division of Oil, Gas & Mining

-This site was previously known as Cedar Buttes Asphalt Mine S/047/028.
-Duchesne County posted an interim surety of $32,750 on 3/31/98; 13.1 acres X $2,500/acre.
-This estimate is based on the LMO-NOI submissions received to date & Division response letters.
-No structures or facilities will remain on site after final reclamation.
-All acreages in this estimate were based on Exhibit B & Exhibit E maps received July 27, 2000.
-Area: Present Mining + Waste Stockpile 7.52 acres, Crushing + Material Stockpile & Loading 3.72 acres, Topsoil stockpile 2.94 acres, Previous Crushing and Stockpiling 1.80 acres, Extension 20.88 acres.
-All earthwork volumes were calculated using areas from Exhibit B & Exhibit E & depths as indicated.
-Composted manure mixed into upper soil layer at 5 ton/acre in extension area & 10 ton/acre in mine areas.
-All reclamation tasks in this estimate are based on information in the Division review of 8/29/00.

-Amount of disturbed area which will receive reclamation treatments = 36.86 acres
-Estimated total disturbed area for this mine = 36.86 acres

Activity	Quantity	Units	$/unit	$	Note
Safety signs (mtls & installation)	1	sum	200	200	(1)
Demolition of scale house (est volume)	800	CF	0.24	192	(2)
Debris & equipment removal - trucking	3	trips	50	150	(3)
Debris & equipment removal - dump fees	20	CY	55	1,100	(4)
Debris & equipment removal - loading trucks w/FE loader	4	hours	107	429	(5)
Demolition & debris removal - general labor	8	hours	15	120	(6)
Regrading waste material into pit (est. 4' x 4.4 acre)	28,395	CY	0.60	17,037	(7)
Ripping waste material stockpile area	1.10	acre	317	349	(8)
Ripping topsoil stockpile pad & previous crushing areas	4.74	acre	317	1,503	(8)
Boulders & roughening at highwall base - trackhoe	8	hr	172.46	1,380	(9)
Ripping roads & pads - crushing & mtl stockpile - dozer	2.00	acre	317	634	(8)
Regrading crushing & mtl stockpile area -dozer (50% are	1.86	acre	334	621	(10)
Sidecast mtl replacement-steep roads- trackhoe (est LF)	2,000	LF	1.09	2,180	(11)
Regrading grubbed soils in extension area(est. 1.5' deep)	25,265	CY	0.34	8,590	(12)
Ripping roads in extension area (est 2,000' x 35')	1.60	acre	317	507	(8)
Surface drainage restoration or construction (est LF)	800	LF	0.11	88	(13)
Topsoil over pit backfill - truck haulage (4 acre x 0.5')	3,227	CY	1.92	6,195	(14)
Topsoil over pit backfill - loading truck with FE loader	3,227	CY	0.58	1,871	(15)
Composted manure (10 t/acre) pit & waste stockpile area	7.52	acre	300	2,256	(00)
Composted manure (10 t/acre)crushing, topsoil, & previou	8.46	acre	300	2,538	(00)
Composted manure (5 t/acre) extension area	20.88	acre	150	3,132	(00)
Broadcast seeding (~20 lb/acre)	36.86	acre	170	11,058	(00)
General site cleanup & trash removal (40% area)	14.74	acre	50	737	(00)
Equipment mobilization	4	equip	1000	4,000	(00)
Reclamation Supervision	8	days	386	3,088	(16)
		Subtotal		69,955	
10% Contingency				6,996	
		Subtotal		$76,951	
Escalate for 5 years at 3.13% per yr				12,821	
		Total		$89,771	
	Rounded surety amount in yr 2005-$			**$89,800**	
Average cost per disturbed acre =	$2,436				